

***Election/Restrictions***

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-5, drawn to an interactive infrared electronic white board in class 345/175

Group II, claim(s) 6-10, drawn to an interactive infrared electronic white board with the calculating light path/coordinates in class 178/18.01.

The inventions listed as Groups I and II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The common feature is the broadly claimed infrared electronic white board apparatus, which was known in the art at the time of the invention and thus does not qualify as a special technical feature.

2. During a telephone conversation with Charles Baxley on 19 June 2008 a provisional election was made without traverse to prosecute the invention of group II, claims 6-10. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-5 withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

3. This application is in condition for allowance except for the presence of claims 1-5 directed to an invention non-elected without traverse. Accordingly, claims 1-5 have been cancelled.

***Examiner's Amendment***

4. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Charles Baxley via voice message with examiner's message left on 6-19-08 and Charles Baxley's voice message in reply left on 6-20-08. The amendments correct multiple dependency issues.

In the Claims:

Please cancel claims 1-5

Regarding **claim 9**: in line 1 of the claim delete "or 8".

Regarding **claim 10**: in line 1 of the claim delete "or 8 or 9"

***Allowable Subject Matter***

5. Claims 6-10 allowed.

6. The following is an examiner's statement of reasons for allowance:

The art cited on the PTO-892 form teaches apparatuses that determine position and, at least in the case of Masters, the size of an object on a touch pad but does not teach that this is done:

by means of a curve equation including a  $\tan(x)$  function, or a quadratic curve equation, or a curve equation of higher orders, the relationship between

the voltage generated by the infrared receiving diode and the blocked width  $d_i$  in the infrared light path blocked by the blocking object is established, and the equation for calculating the dimension  $W$  of the object is:

$$W = \sum_{i=j}^N d_i = d_j + d_{j+1} \cdots d_{j+n}, \quad N = j + n$$

wherein,  $j$  is the sequence number of the receiving diode;  $D$  is the blocked width in the light path;  $n$  is a constant variable; and the equation for calculating the coordinates of the moving object is:

$$X = j \times L - d_j + \left( \sum_{i=j}^N d_i \right) + 2$$

$$Y = k \times L - d_k + \left( \sum_{i=k}^N d_i \right) + 2$$

wherein  $j$  is the sequence number of the receiving diode on the X axis;  $k$  is the sequence number of the receiving diode on the Y axis;  $d$  is the blocked length in the light path;  $N: N=j+n$ ,  $n$  is a constant variable; after the values of  $W$ , and  $X$ ,  $Y$  are defined, coordinate capturing, identification, track reconstruction and storage of the moving path of the moving object on the infrared white board can be realized.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT R. RAINEY whose telephone number is (571)270-3313. The examiner can normally be reached on Monday through Friday 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amare Mengistu can be reached on (571) 272-7674. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2629

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/RR/

/Amare Mengistu/  
Supervisory Patent Examiner, Art Unit 2629